

PRODUCT SHEET

Product: TEMS™ Automatic – Remote Test Unit



REMOTE TEST UNITS FOR TEMS™ AUTOMATIC



The next generation of autonomous test units has arrived. The Remote Test Units (RTUs) contain multiple test devices. The units are smaller, more powerful, and more robust than our previous mobile test units, with support for up to four embedded measurement devices. They support voice and data for GSM/GPRS/EDGE, WCDMA R99, Dual Carrier HSPA+, and LTE, including AMR-WB.

Small and durable, the new RTUs can be deployed nearly anywhere. They fit well in taxis, buses, trains, delivery trucks, and even on ships and ferries. For fixed testing, they can be easily deployed in public areas such as airports, offices, and shopping centers. It is possible to stack RTUs for even more flexibility.

Comprehensive service and network information is collected by the RTUs. Because they are powerful as well as easily deployed, the units allow TEMS Automatic to perform a wide range of valuable tasks: benchmarking, optimization, quality assurance monitoring, and service performance monitoring are among them.

The RTUs have advanced autonomous operation and are controlled remotely from the TEMS Automatic back-end server. The timing, location, and type of testing can be configured in this way. Even software and firmware upgrades can be performed remotely.

The RTUs can be configured to support scanning either by using internal devices, or by having external scanners: PCTEL EX or PCTEL EX mini (also mounted on the RTU).

The RTU itself holds up to four embedded measurement devices (Ericsson F3607gw and/or Sierra Wireless MC77x0/MC8801), an eight-slot SIM switch, together with a GPS. For data upload, any of the four devices in the RTU can be used, and it can be configured either as shared with testing or dedicated for upload (only). The RTUs operate without fans, which represents an important enhancement, particularly for in-building deployment as fixed test units.



RTU5 – front and back

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Device Capabilities	Ericsson F3607gw	Sierra Wireless MC7710	Sierra Wireless MC7700
LTE bands	-	DD800/1800/2100/2600 MHz	700/1700/2100 MHz
WCDMA bands	850/1900/2100 or 900/1900/2100 MHz	900/2100 MHz	800/850/1900/2100 MHz
GSM bands	850/900/1800/1900 MHz	900/1800/1900 MHz	850/900/1800/1900 MHz
GSM/WCDMA voice	HR/FR/EFR/AMRHR/AMRFR/AMR-WB	N/A	N/A
GSM/GPRS/EDGE	Multislot Class 10 (GPRS and EDGE)	Multislot Class 12 (GPRS and EDGE)	Multislot Class 12 (GPRS and EDGE)
WCDMA R99/HSPA	HSDPA Cat. up to 7.2 Mbps (Cat. 1-8) HSUPA Cat. up to 2.0 Mbps (Cat. 1, 3, 5)	HSDPA 21.1 Mbps (Cat. 14). HSPA+ 42.2 Mbps w. Dual Carrier (Cat. 24). HSUPA 5.76 Mbps (Cat. 6)	HSDPA 21.1 Mbps (Cat. 14). HSPA+ 42.2 Mbps w. Dual Carrier (Cat. 24). HSUPA 5.76 Mbps (Cat. 6)
LTE	-	LTE Cat. up to 100 Mbps (Cat. 3, MIMO)	LTE Cat. up to 100 Mbps (Cat. 3, MIMO)

Testing Capabilities	Ericsson F3607gw	Sierra Wireless MC77X0/MC8801
Voice, incl. SQI, PESQ and POLQA UL/DL, MoToMo/MoToFix	X	-
FTP Get / Put, incl. TCP-HS	X	X
HTTP, browsing and download	X	X
Video streaming / Mobile TV, incl. VSQI, direct access	X	X
Video streaming / Mobile TV, incl. VSQI, WAP access	X	-
WAP, 1.x and 2.0	X	-
PING, ICMP	X	X
MMS, end-to-end	X	X (UMTS)
SMS, end-to-end	X	X (UMTS)
Idle mode (network standby)	X	X
Scanning (GSM/WCDMA)*	X	-

* More information, see scanning table capabilities.

Control functionality	Ericsson F3607gw	Sierra Wireless 77x0/MC8801
Set category (HSPA)	-	X
Lock on RAT (GSM/WCDMA)	X	X
Lock on GSM band	X	X
Lock on WCDMA band	X	X
EDGE capability control	X	X
HS capability control	X	X
Preferred voice codec (HR/FR/EFR/AMR-HR/AMR-WB)	X	N/A

Scanning Capabilities	PCTEL EX Scanner (External)	Ericsson F3607gw
Technology	GSM and WCDMA (Concurrent), LTE	GSM and WCDMA (Sequential)
Bands	WCDMA	2100, 900/2100, or 850/1900 MHz
	GSM	900/1800 or 850/1900 MHz
	LTE	700/800/900/1800/1900/2100/2600 MHz
Scanning	WCDMA	Top-N Pilot (CPICH), BCH (Optional)
	GSM	RSSI, BSIC, C/I (Optional) and BCCH (Optional)
	LTE	RSSI, Signal, Spectrum and enhanced power scan

General RTU information	Description
Operating system	Windows XP/XP Pro embedded
Input voltage range	6.0 to 32.0 V DC max 6A
Power consumption	RTU with 2 internal measurement devices: 31.1 W. RTU with 3 internal measurement devices: 34.6 W. RTU with 3 internal + 2 external devices: Max 60 W. RTU with 4 internal + 1 external device: Max 60 W.
Dimensions (H x W x D)	50 x 260 x 176 mm
Weight	2.6 kg
Operating temperature	-25 °C to +50°C*
Conformity	CE, Compliant with FCC rules, CFR 47, Part 15, Subpart C, Intentional radiator, Paragraph 15.209

* Maximum temperature may be affected by technology and measurement device and external accessories used.